eEUROPE: GOALS, ACHIEVEMENTS, CHALLENGES AND PROSPECTS

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Abstract

At Lisbon, in March 2000, the European Council set the Union a new strategic goal to be reached by 2010: "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion." In order to realise this ambitious goal two subsequent action plans have been put into practice that set out roadmaps of what is to be done and by when: The eEurope 2002 Action Plan, endorsed by the EU leaders at their Feira summit in June 2000 and eEurope 2005 Action Plan, approved by the EU leaders in Seville in June 2002. This paper is going to make a general assessment of eEurope within the framework of these two Action Plans, by explaining the goals, evaluating the achievements, underlining the challenges and explaining the prospects for the future.

Introduction

> *"eEurope is a political initiative to ensure the European Union fully benefits for generations to come from the changes the Information Society is bringing. These changes, the most significant since the Industrial Revolution, are far-reaching and global. They are not just about technology. They will affect everyone, everywhere.*
>
> *Bringing communities, both rural and urban, closer together, creating wealth, sharing* knowledge, they have huge potential to enrich everyone's lives.
> *Managing this transformation represents the central economic and social challenge for the Union. It will impact profoundly on*

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European employment, growth and productivity for the next five years and for decades afterwards.

eEurope is intended to accelerate positive change in the Union. It aims at ensuring this change towards the Information Society is cohesive, not divisive. Integrating, notfragmenting. An opportunity not a threat. In essence, eEurope aims at bringing the benefits of the Information Society to the reach of all Europeans."[1]

The Digital Revolution of our times is often regarded as a transformation which is comparable to the Industrial Revolution of the 18th and 19th centuries. No one can deny that the Internet has changed many aspects of our lives, be it in the private or the public domain. Information technologies have given human beings the great opportunity of overcoming barriers related to time and distance.

Today the challenge for all societies, whether developed or developing, is to become a truly knowledge-based economy. It is necessary to join the Digital Revolution. "But like all revolutions, some people will remain untouched by the winds of change. Obvious barriers to change are insurmountable poverty that continues to plague countries, civil and military strife and socio-cultural convictions that prevent open access to the Internet. ... The ability to join the Digital Revolution is a reflection of a nation's cultural and political history, of its stability and its economy and, ultimately, of the determination of its leaders and the faith of its people."[2]

Lagging behind the United States in the initial phases of the Digital Revolution in the nineties, European leaders decided to catch up at the beginning of the 21st century, by "channelling efforts at regional, national and European levels to ensure that the digital economy brings benefits to all European citizens and to put a European stamp on the Internet."[3]

At Lisbon, in March 2000, the European Council set the Union a new strategic goal to be reached by 2010: "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion."[4]

Prior to this declaration by the European Council, the European Commission had launched the basic outline for eEurope in December 1999.[5] Later on, there were two subsequent action plans that have set out roadmaps of what is to be done by when: eEurope 2002 Action Plan,[6] endorsed by the

EU leaders at their Feira summit in June 2000 and eEurope 2005 Action Plan,[7] approved by EU leaders in Seville in June 2002.

This paper is going to make a general assessment of eEurope, by explaining the goals and evaluating the achievements so far, within the framework of these two Action Plans. First, eEurope 2002 will be tackled by explaining the goals, analysing the achievements and underlining the challenges. Then the objectives of eEurope 2005 will be put forward as prospects for the future of information society in Europe.

eEurope 2002: Goals, Achievements and Challenges

The ongoing global transformation from industrial to information society has produced what is often termed as the "new economy", which brings new opportunities for growth and employment . The European Commission tackled the dynamics of the new economy as follows:

> *"Digital technologies make accessing, processing, storing and transmitting information increasingly cheaper and easier. The sheer scale of information available creates huge opportunities for its exploitation through the development of new products and services. Transforming digital information into economic and social value is the basis of the new economy, creating new industries, changing others and profoundly affecting citizens' lives. Enterprises in all sectors are starting to transform their business into e-business -- requiring restructuring of the entire company. Many sectors (e.g. airlines, book selling, stock brokerage, publishing, telecoms, computer sales) now have leading players who did not exist a few years ago. The key to their growth has been to use the Internet to increase productivity and broaden their network presence. All companies, big and small, need to respond to the transformation of the marketplace."* [8]

The transformation of the marketplace largely depends on consumers' ability to take full advantage of the opportunities on offer. That means, consumers have to acquire the skills that will let them access the information they seek and interact successfully on the Internet. In other words, without building consumer confidence, markets are not likely to develop on a satisfactory level.[9]

These considerations led to the conclusion that it was necessary to bring everyone in Europe - every citizen, every school, every company, every government and administration - online as quickly as possible. It had to become commonplace to access and use the Internet with the help of different technologies (computer, TV set-top box, or mobile phone). According to the Commission, Europe had to overcome the following handicaps to speed up the uptake of digital technologies:[10]

-generally expensive, insecure and slow access to the Internet and e-commerce
-an insufficient digitally literate on-line population
-lack of a sufficiently dynamic, entrepreneurial, service-oriented culture
-a public sector which is not playing a sufficiently active role in enabling the development of new applications and services.

In order to overcome these problems, the Commission's eEurope initiative would build on 10 priority actions:[11]

1. European youth into the digital age
2. Cheaper Internet access
3. Accelerating e-Commerce
4. Fast Internet for researchers and students
5. Smart cards for secure electronic access
6. Risk capital for high-tech SMEs
7. eParticipation for the disabled
8. Healthcare online
9. Intelligent transport
10. Government online.

The Commission evaluated the eEurope initiative as another historic political project like the Single Market and the Euro. Member States, industries and citizens were called on to join their efforts to achieve these targets and also to extend them to adhesion countries.[12]

The European Council held in Lisbon on 23and 24 March 2000,[13] recognising an urgent need for Europe to quickly exploit the opportunities of the new economy and in particular the Internet, set the ambitious objective for Europe to become the most competitive and dynamic knowledge-based economy in the world, in the next decade. Following the Lisbon summit, the Commission's above-mentioned 10 areas of action were revised in the light of the reactions from the Member States, the European

Parliament, and the Informal Ministerial Conference on the Information and Knowledge Society held in Lisbon on 10-11 April 2000.

Accordingly, the Commission prepared a new draft Action Plan, which was discussed with Member States and adopted by the Feira European Council on 19-20 June 2000.[14] The aim of this Action Plan, known as "eEurope 2002", is to ensure that the targets set by the Lisbon European Council are reached, by defining the necessary measures. The revised actions are clustered around three main objectives:[15]

1. A cheaper, faster, secure Internet
2. Investing in people and skills
3. Stimulating the use of the Internet.

The achievement of these objectives requires an appropriate legal environment and new infrastructure and services across Europe. Also, to monitor the progress towards the knowledge based economy, an open method of co-ordination and benchmarking is to be applied. Accordingly, 23 benchmarking indicators, evaluating several aspects of the three main objectives, were discussed with Member States and endorsed by the Council on 30 November 2000.[16] On the basis of these indicators, using recent data and the same methodology for all Member States, benchmarking has been carried out.[17]

When eEurope 2002 is evaluated in terms of the above mentioned objectives, it may be claimed that there has been a quite successful performance in general:

Regarding cheaper and faster Internet access, one of the major goals was to create a single market for all telecommunications services. In order to do that, rules and regulations governing Internet access had to be modernised. In March 2002, the EU formally adopted a New Regulatory Framework for electronic communications network and services,[18] which will simplify and streamline the existing EU legislative framework. The number of laws are going to be cut down from 23 to 8. This new framework will be applied in all Member States, starting from 25 July 2003. A truly liberalised telecoms market will be created, where competition cuts prices and improves the quality of services. Thus, cheaper and faster Internet access for citizens and business will be achieved.[19]

Secure Internet access has also been on the agenda of the EU. The Commission has set out comprehensive strategies for network and information security. A Framework Decision on Combating Terrorism (which includes attacks against information systems) and a Decision on Attacks against Computer Systems have been proposed by the Commission to ensure that the Member States will all take tough action against the perpetrators of serious attacks.[20] Also, a 1995 EU framework Directive and a specific 1998 Directive (later modified) covering electronic communications guarantee a high level of privacy for the individual by ensuring free movement of personal data within the EU and to third countries with similar standards. [21]

According to the eEurope Benchmarking Report for 2002,[22] the percentage of EU households with Internet access went from 18% in March 2000, up to 28% in October 2000, 36% in June 2001 and 38% in December 2001. A more recent survey[23] puts forward that it reached 40% by mid-2002, which is roughly equal to 150 million Internet users.

The eEurope Benchmarking Report for 2002 explains that internationally available statistics have shown a clear inverse relationship between Internet price and penetration. But, the objective of a cheaper Internet service does not mean artificially low or subsidised prices. The approach of eEurope is to stimulate competition so that prices will go down to competitive levels away from monopoly prices. "This has proved successful as regards Internet access by a standard dial-up telephone line. Prices for Internet access by standard telephone have been going down continuously and substantially in the last two years. A Commission survey, carried out in November 2001, found that for a typical residential user, i.e. 20 hours of usage off-peak, monthly costs are now between 10-20 Euros for the cheapest offer in most Member States, including call charges. Thus, the marginal costs of Internet access for a PC owner have become small, but still remain significantly higher than in the United States."[24]

In short, remarkable steps have been taken to develop cheaper, faster and secure Internet access. Similarly, there has been significant progress in terms of investing in people and skills. While Member States organise their own national education systems, the EU's eLearning Action Plan for 2001-2004, co-ordinates national efforts to modernise educational and vocational training systems. The eLearning Action Plan has the following objectives:[25]

-to ensure, by the end of 2003, that all school-leavers have had the chance to become digitally literate
-to provide all teachers with appropriate training, to adapt teacher training programmes accordingly, and to introduce measures to encourage teachers to make real use of digital technology in their lessons, by the end of 2002
-to offer every worker the opportunity to become digitally literate through the lifelong learning system, by the end of 2003.

Computer literate school leavers and workers are expected to keep up with the Internet revolution in their workplaces. This means a highly skilled working force to be employed and digitally literate consumers to buy new products and services.[26] The intention is to make lifelong learning the driving force behind a cohesive and inclusive society, within a competitive economy. Such an attitude will help promote the objectives of employability and adaptability, overcome the shortage of skills associated with new technologies, and improve social inclusion.[27]

Internet access for schools went from 89% in 2001 up to 93% in 2002.[28] Although the major target of providing all schools with Internet access by the end of 2001[29] could not be achieved, the progress so far is still remarkable. When it comes to the ratio of students to online computers, the recent goal was set in March 2002. At their summit in Barcelona in March 2002,[30] the EU's heads of state and government set themselves the target of ensuring that, by the end of 2003, there would be one online computer, used for educational purposes, for every 15 pupils in EU schools. In 2001, the ratio was one online computer for every 25 students, which went down to one for every 17 in 2002.[31]

In the workplace, the people of Europe are to be in a position to acquire new knowledge and skills to ensure future employability. The objective is to enable them with such skills at any time in their lives. This guarantee of life-long learning makes e-inclusion possible, which is of crucial importance to the European social model. Member States agree that it is their responsibility to make benefits of information and communication technologies available to everyone, rather than to a privileged minority. Internet access is regarded as a fundamental right for all citizens and governments are supposed to have a duty to provide it. In other words, the EU is determined to make the new knowledge-based society inclusive for all European citizens.

A significant indicator of this inclusiveness is the number of workers using computers at their workplace. "By 2002, more than half of EU workers were using computers at their workplace, and this has grown by about a fifth since 2001. Three out of four white-collar workers are computer users. However, not enough people are receiving the necessary training: only about a third of the EU workforce has ever had computer training for a job. This situation has to improve; digital skills are essential to the employability of workers in all sectors."[32]

In the realm of stimulating use of the Internet, the EU has mostly not been involved in legislative actions. However, the EU governments have started making 20 basic services available online in order to make life easier for citizens and businesses through the use of new technology. These services are as follows:[33]

Public services for citizens:
1. Income taxes: declaration, notification of assessment
2. Job search services by labour offices
3. Social security contributions
-Unemployment benefits
-Family allowances
-Medical costs (reimbursement or direct settlement)
-Student grants
4. Personal documents (passport and driver's licence)
5. Car registration (new, used and imported cars)
6. Application for building permission
7. Declaration to the police (e.g. in case of theft)
8. Public libraries (availability of catalogues, search tools)
9. Certificates (birth, marriage): request and delivery
10. Enrolment in higher education / university
11. Announcement of moving (change of address)
12. Health related services (e.g. interactive advice on the availability of services in different hospitals; appointments for hospitals.)

Public services for businesses:
1. Social contribution for employees
2. Corporation tax: declaration, notification
3. VAT: declaration, notification
4. Registration of a new company
5. Submission of data to statistical offices
6. Customs declarations

7. Environment-related permits (incl. reporting)
8. Public procurement.

In April 2002, research carried out for the European Commission[34] showed that, on average, 55% of basic public services were available online compared to 45% in October 2001. Most of the websites surveyed already provide more interactivity than simply downloading forms. The research also reveals that the provision of eGovernment services to business (68%) is progressing much faster than to citizens (47%), with the only exception of the Netherlands where online public services to citizens are more widespread than services to business.

In order to identify common trends within groups of related services, four service clusters have been created:[35]

-Income-generating: services where finance flows from citizens and businesses to the government (mainly taxes and social contributions)
-Registration: services related to recording object -or person- related data as a result of administrative obligations
-Returns: public services given to citizens and businesses in return for taxes and contributions
-Permits & licences: documents provided by governmental bodies giving permission to build a house, to run a business etc.

Services which involve paying money to the public sector remain the highest performer with a 79% rate in April 2002 compared to 62% in October 2001. Of these services, VAT declarations have the highest score (88%). Overall, Ireland has the highest score (85%) followed by Sweden (81%), Finland (70%) and Denmark (69%), which means that many of their services reached a full transactional phase. All the other countries score between 22% and 70%. The average scores of each country are progressing with a variation between 4 %-20 %.[36]

To stimulate the use of the Internet in commercial activities, the EU has concentrated on providing a favourable environment in which companies and all other types of organisations can develop digital skills and services. For example, a legal framework for eCommerce has been set out in a Directive[37] which became law throughout the EU in January 2002. In March 2002 the formal decision was taken to create the ".eu" top level domain which will allow European citizens, organisations and businesses to have

web-sites and e-mail addresses that end with ".eu" instead of letters indicating a country or ".com".[38]

eCommerce growth has been slower than expected in that final demand from consumers for electronically traded goods and services has increased slowly. In October 2000, 31% of EU Internet users had purchased online and this rose to 36% by November 2001. Only 4% of users classified themselves as frequent purchasers and this seems to be a major problem for eCommerce. There are differences between Member States in the proportion of Internet users who have purchased online. The pattern broadly corresponds to that of Internet penetration: higher proportions in northern Europe, lower in the south. There are also indications that many willing shoppers refrain from shopping due to security considerations and/or high shipping/delivery costs. Increasing competition in the postal sector would certainly contribute to lower prices for delivery. Another significant issue is trust. It is necessary that consumers should be confident in being able to obtain redress in the event of an online dispute

As for the supply side of eCommerce, overall take-up by businesses is also relatively slow. On average, around 20% of European companies buy and sell over the Internet. Germany, Ireland and the UK spearhead the sales part, while Denmark and Finland are strong on the online purchasing side. Big companies buy and sell more online than small companies. The services sector is in the lead as regards the use of the Internet to sell or purchase goods and/or services. In six Member States, more than 30% of all enterprises purchase some or all of their supplies via the Internet, with Finland and Denmark above 40%. At the other end of the scale, only 5% of Portuguese and 10% of French enterprises use the Internet to purchase their supplies. The percentage of companies selling online varies from more than 30% in the UK and Germany to less than 10% in Spain, Greece and Portugal. The same level of disparity applies to the use of electronic marketplaces where figures range from 3% of companies in Portugal to 21% in Germany."[39]

"These results confirm both other benchmarking results and the conclusions drawn from measuring Internet penetration and Internet access costs. In those countries with a high level of Internet penetration and low Internet access costs, more companies use the Internet to buy and sell online than in less advanced countries. The fact that fewer companies sell than purchase online is probably because of the higher costs of online selling. Buying only requires a connection and a credit card whereas selling requires a website to

be set-up and maintained with adequate security and possibly logistics organisation."[40]

Another initiative, eHealth, aims to use digital technologies to improve the quality and accessibility of health services, including e-accessibility for the disabled. In March 2002, the EU Council of Ministers adopted a Resolution[41] designed to facilitate Internet access for 37 million disabled people in Europe by agreeing a set of internationally recognised standards. The Resolution also calls on Member States and the Commission to establish a permanent dialogue with organisations representing disabled persons and organisations representing the elderly to take account of their comments and concerns.

At the same time, there has been considerable progress in Internet take-up by general practitioner doctors. In June 2001, 60% of all primary care providers were equipped with an Internet connection, compared to 48% in May 2000. Over the same period, the percentage of general practitioners using the Internet to communicate with patients rose from 12% to 34%.[42]

The EU's performance regarding the eEurope 2002 Action Plan has been successful. However, since 2000, the situation has evolved in such a way that, while some measures have been completed, some new challenges have emerged. So the second Action Plan eEurope 2005 has updated the EU's priorities and fine-tuned the process. The next section will explain the Union's future plans regarding information society by concentrating on eEurope 2005.

eEurope 2005: Prospects for the Future

Some objectives of eEurope have been achieved in that Internet access costs are going down. The marginal costs of Internet access for a PC owner have become small. However, they are still higher than in the United States. Slow eCommerce development and difficult broadband deployment are also important problems that should be solved.[43]

In order to tackle the remaining problems, Member States have agreed upon the principles of eEurope 2005 Action Plan, which is based on two groups of actions that reinforce each other. "On the one hand, it aims to stimulate services, applications and content, covering both online public services and e-business; on the other hand it addresses the underlying broadband infrastructure and security matters."[44]

To facilitate broadband access[45] in remote and rural regions, Member States are to use the EU's existing Structural Funds (regional and social funds). At the same time, they should eliminate legislative barriers and promote investments in broadband. By mid-2003, a Cyber Security Task Force (CSTF) is to start working as a centre of competence on security questions.

While tackling infrastructure and security matters, eEurope 2005 also aims at the effective use of the Internet for eCommerce and public services, including schools and businesses. In other words, enhancement of eGovernment, eLearning, eHealth and creation of a dynamic environment for the development of eBusiness are the major priorities.

As for eGovernment, by the end of 2003, the Commission will put forward an interoperability framework involving common technical specifications to ensure that national eGovernment services can be delivered to citizens and businesses throughout the European Union. By the end of 2004, EU governments will ensure that 20 basic services are available online, interactively. This must include guaranteed access for citizens with special needs. By the end of 2005, the EU Member States will carry out a significant portion of their public procurement electronically.[46]

eLearning is to be enhanced by the Member States. By the end of 2002, the EU should have in place an eLearning Programme to implement the eLearning Action Plan in 2004-2006. All schools and universities should have broadband access by the end of 2005. By the end of 2003, EU governments should launch training programmes to provide adults with the skills they need for employment in the knowledge society.[47]

Regarding eHealth, by spring 2003, the European Commission will propose the introduction of electronic health cards based on common standards and exchange of best practice. By the end of 2005, EU governments are going to develop health information networks linking hospitals, laboratories and homes. By the end of 2005, the European Commission and EU governments will ensure the online provision of health services, including information on healthy living, illness prevention and electronic health records.[48]

eBusiness will be tackled in a summit which is to take place in 2003 to give high-level business representatives the opportunity to describe the difficulties encountered when doing eBusiness. By the end of 2003, the Commission will set up an eBusiness support network to promote the take

up of digital technologies and processes by small and medium sized businesses. By the end of 2003, the private sector has to develop interoperable eBusiness solutions for transactions, security, signatures, procurement and payments. By the end of 2003, the Commission will examine possible ways of setting up an EU-wide online dispute resolution system.[49]

The priorities of eEurope 2005 Action Plan show that by 2005, Europe is expected to have modern online public services and a dynamic eBusiness environment. As an enabler for these aims, there should be widespread availability of broadband access at competitive prices, and a secure information infrastructure.

Conclusion

When EU leaders decided to make the European Union the world's most competitive knowledge-based society by 2010 at Lisbon in March 2000, they agreed that businesses and citizens must have access to an inexpensive, world-class communications infrastructure and a wide range of services; every citizen must be equipped with the skills needed to live and work in this new information society; and, a higher priority must be given to lifelong learning as a basic component of the European social model.

Accordingly, eEurope 2002 Action Plan has put forward broad objectives and successfully put the Internet at the top of the European political agenda. Significant progress has been made regarding a cheaper, faster, and more secure Internet; investing in people and skills; and, stimulating the use of the Internet. However, new challenges emerged and in order to cope with them, the eEurope 2005 Action Plan has narrowed the focus, concentrating on effective access, usage and the ready availability of the Internet.

eEurope 2005 puts users at the centre, because the new knowledge-based society must be an inclusive one. At all levels and in all implementing measures e-inclusion, including e-accessibility for people with special needs is emphasised. E-inclusion means that key services must be available not only via personal computer but also via interactive digital television, third generation mobile phones and cable networks. eGovernment, eLearning, eHealth and eBusiness are expected to progress on a secure broadband infrastructure throughout the Union by 2005.

"The EU effort is designed to build on and to strengthen the 'European social model', including a high level of social protection. It is also meant to preserve Europe's cultural and linguistic diversity. It focuses on developing European content in European languages so that everybody has access to services and content in their own mother tongue. The Internet may turn the world into a global village, but the EU is committed to ensuring that in this village every culture and every language maintains its role at local level."[30]

The eEurope initiative has also become part of the enlargement process of the Union. Social inclusion is vital to the success of future enlargement, and digital inclusion is an important aspect of it. "At the European Ministerial Conference held in Warsaw on 11-12 May 2000, Central and Eastern European Countries recognised the strategic goal set by the EU-15 in Lisbon and agreed to embrace the challenge set by the EU-15 with eEurope and decided to launch an 'eEurope-like Action Plan' *by and for* the Candidate Countries as a compliment to the EU political commitments in order to try and broaden the base for achieving the ambitious above mentioned goal. In February 2001, the European Commission invited Cyprus, Malta and Turkey to join the other candidate countries in defining this common Action Plan." [31]

This initiative, "eEurope 2003+", of which Turkey is a part, "mirrors the priority objectives and targets of eEurope but provides for actions which tackle the specific situation of theCandidate Countries. It should not be perceived as a substitute for or interfering with accession negotiations. Like eEurope, the eEurope+ Action Plan aims to accelerate reform and modernisation of the economies in the candidate countries, encourage capacity and institution building, improve overall competitiveness and provide for actions which address the specific situation of the Candidate Countries."[32]

The EU's eEurope initiative, which has been adopted by the candidate countries as well, was designed as a means of getting Europe online as quickly as possible. "It also gives the Internet a European dimension by encouraging multi-lingual content and by allowing European countries to build on their competitive advantages in areas such as mobile phone technologies and digital television. Achieving the eEurope goals will certainly help create jobs and make European industries more competitive. This is part of the EU's continuing efforts to fulfil its obligation - enshrined in Article 2 of the Treaty on European Union - to promote economic and social progress and a high level of employment. The success of eEurope

depends not only on the European institutions but on national, regional and local government throughout the EU, on businesses, schools, hospitals."[53] In fact, it depends on European citizens, since eEurope has been designed for them. That means the citizens of Europe should try to take advantage of it and make it work for themselves.

Endnotes

[1] "eEurope: An Information Society For All", *Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000*, p.2, http://www.europa.eu.int/information_society/eeurope/news_library/pdf_files/initiative_en.pdf, access date: 11 10 2002.

[2] Darby Patterson, " Point of View: Gaining an International Perspective", *Government Technology*, August 2002, http://www.govtech.net/magazine/story.phtml?id=3030000000018386,0, access date: 06 11 2002.

[3] "Towards a knowledge-based Europe: The European Union and the information society",
Manuscript for information brochure for the general public, European Commission, Directorate General for Press and Communication, October 2002, p.4, http://europa.eu.int/information_society/newsroom/documents/catalogue_en.pdf, access date: 30 10 2002.

[4] "Presidency Conclusions: Lisbon European Council", 23 and 24 March 2000, http://ue.eu.int/en/Info/eurocouncil/index.htm, access date:15 11 2002.

[5] "eEurope: An Information Society For All", see, no.1 above.

[6] "eEurope 2002: An Information Society For All", *Action Plan prepared by the Council and the European Commission for the Feira European Council, 19-20 June 2000*, Council of the European Union Commission of the European Communities, 14.6.2000, http://www.europa.eu.int/information_society/eeurope/action_plan/pdf/actionplan_en.pdf, access date: 11 10 2002.

[7] "eEurope 2005: An information society for all", *An Action Plan to be presented in view of the Sevilla European Council, 21/22 June 2002*, Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, 28.5.2002,

http://europa.eu.int/information_society/europe/news_library/europe2005/index_en.htm, access date: 02.10.2002.

[8] "eEurope: An Information Society For All", see, no.1 above, p.4.

[9] *Ibid.*

[10] *Ibid.*, p.5.

[11] *Ibid.*

[12] *Ibid.*, pp.5-6.

[13] See, no. 4 above.

[14] "An Information Society For All", see, no.6 above.

[15] *Ibid.*, p.2.
Details of these actions are as follows:
1.A cheaper, faster, secure Internet: a) Cheaper and faster Internet access; b) Faster Internet for researchers and students; c) Secure networks and smart cards.
2. Investing in people and skills: a) European youth into the digital age; b)Working in the knowledge-based economy; c) Participation for all in the knowledge-based economy.
3. Stimulating the use of the Internet: a) Accelerating e-commerce; b) Government online: electronic access to public services; c) Health online; d) European digital content for global networks; e) Intelligent transport systems.

[16] See,
http://www.europa.eu.int/information_society/europe/benchmarking/indicator_list.pdf, access date: 10.10.2002.
The 23 benchmarking indicators are:
Cheaper, faster Internet
1. Percentage of population who regularly use the Internet
2. Percentage of households with internet access at home
3. Internet access costs
Faster Internet for researchers and students
4. Speed of interconnections and services available between and within national research and education networks (NRENs) within EU and world-wide
Secure networks and smartcards
5. Number of secure servers per million inhabitants
6. Percentage of Internet-using public that have experienced security problems
European youth into the digital age
7. Number of computers per 100 pupils in primary/secondary/ tertiary levels

8. Number of computers connected to the Internet per 100 pupils in primary/secondary/
tertiary levels
9. Number of computers with high speed connections to the Internet per 100 pupils in
primary/secondary/ tertiary levels
10. Percentage of teachers using the Internet for non-computing teaching on a regular
basis
Working in the knowledge-based economy
11. Percentage of workforce with (at least) basic IT training
12. Number of places and graduates in ICT related third level education
13. Percentage of workforce using telework
Participation for all in the knowledge-based economy
14. Number of Public Internet Points (PIAP) per 1000 inhabitants
15. Percentage of central government websites that conform to the WAI accessibility
gnidelines at A level
Accelerating e-commerce
16. Percentage of companies that buy and sell over the Internet
Government on-line
17. Percentage of basic public services available on-line
18. Public use of government on-line services - for information/ for submission of forms
19. Percentage of public procurement which can be carried out on-line
Health on-line
20. Percentage of health professionals with Internet access
21. Use of different categories of web content by health professionals
European digital content for global networks
22. Percentage of EU web sites in the national top 50 visited
Intelligent Transport Systems
23. Percentage of the motorway network (vs. total length of network) equipped with congestion information and management systems.

[17] "eEurope Benchmarking Report: eEurope 2002", *Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions*, 5.2.2002, COM(2002) 62 final, http://www.europa.eu.int/information_society/eeurope/news_library/new_documents/benchmarking/benchmarkin_en.pdf, p. 4, access date: 10 10 2002.

[18] For details, see, http://www.europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm, access date: 12 11 2002.

[19] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above, p.9.

[20] *Ibid.*

[21] Directive 97/66/EC of the European Parliament and of the Council of 15 December 1997 concerning the processing of personal data and protection of privacy in the telecommunications sector, OJ L 24/1 of 30/1/98, http://europa.eu.int/ISPO/infosoc/telecompolicy/en/9766en.pdf, access date: 12 11 2002.

[22] "eEurope Benchmarking Report: eEurope 2002", see, no. 17 above.

[23] Flash Eurobarometer 125 "*Internet and the public at large*", July 2002, http://www.europa.eu.int/information_society/eeurope/benchmarking/list/source_data_pdf/report_eb125_en.pdf, access date: 10 10 2002.

[24] "eEurope Benchmarking Report: eEurope 2002", see, no. 17 above, p.6.

[25] "The eLearning Action Plan: Designing tomorrow's education", *Communication from the Commission to the Council and the European Parliament*, 28.3.2001, COM(2001)172 final, http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0172en01.pdf, access date: 09 11 2002.

[26] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above, p.10.

[27] "The eLearning Action Plan: Designing tomorrow's education", see, no. 23 above, p. 2.

[28] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above, p. 11.

[29] "The eLearning Action Plan: Designing tomorrow's education", see, no. 25 above, p. 3.

[30] "Presidency Conclusions: Barcelona European Council", 15 and 16 March 2002, p. 17, http://ue.eu.int/en/Info/eurocouncil/index.htm, access date: 15 11 2002.

[31] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above, p. 11.

[32] *Ibid.*

[33] *Ibid., pp.12-13.*

[34] "Summary Report: Web-based Survey on Electronic Public Services (Results of the second measurement: April 2002)", *European Commission DG Information Society*, http://www.europa.eu.int/information_society/eeurope/benchmarking/list/source_data_pdf/2nd_measurement_final_report.pdf, access date: 10 10 2002, p.4-5.

[35] *Ibid.*, p. 5.

[36] *Ibid.*, pp. 5-8.

[37] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ("Directive on electronic commerce"), OJ L 178/1 of 17.7.2000, http://europa.eu.int/ISPO/ecommerce/legal/documents/2000_31ec/2000_31ec_en.pdf, access date: 17 11 2002.

[38] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above, p. 11.

[39] *Ibid.*, p. 14.

[40] *Ibid.*

[41] "Accessibility of public web sites – aecess for people with disabilities", *Council Resolution*, 2420th Council meeting: Transport and Telecommunications, 25/26 March 2002, p. 9, http://ue.eu.int/Newsroom/makeFrame.asp?MAX=1&BID=87&DID=70046&LANG=1&File=/pressData/en/trans/70046.pdf&Picture=0, access date: 17 11 2002.

[42] "eEurope Benchmarking Report: eEurope 2002", see, no. 17 above, p. 16.

[43] "Towards a knowledge-based Europe: The European Union and the information society", see, no. 3 above , p. 15.

[44] "eEurope 2005: An information society for all", see, no. 7 above, p. 3.

[45] The high-speed transmission of voice, data and video signals over fixed or mobile networks. These networks include fixed-wireless, fibre optics and satellite links, and will also include third-generation mobile phones when these become widely used

[46] "eEurope 2005: An information society for all", see, no. 7 above, pp. 10-11.

[47] *Ibid.*, p 12.

[48] *Ibid.*, p 13.

[49] *Ibid.*, pp. 14-15.

[50] "Towards a knowledge-based Europe: The European Union and the information society", see. no. 3 above, p. 4.

[51] "eEurope 2003+: A co-operative effort to implement the Information Society in Europe",
Action Plan prepared by the Candidate Countries with the assistance of the European Commission, June 2001, p. 1.
http://www.edevlet.net/raporveyayinlar/eEuropeActionPlan.pdf, access date: 22 10 2002

[52] *Ibid.*

[53] "Towards a knowledge-based Europe: The European Union and the information society", see. no. 3 above, p. 19.